Division of Environment Curtis State Office Building 1000 SW Jackson St., Suite 400 Topeka, KS 66612-1367



Phone: 785-296-1535 Fax: 785-296-8464 www.kdheks.gov

Robert Moser, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

August 11, 2014

Katie Belden
City Council
City of Pretty Prairie
119 W Main - PO Box 68
Pretty Prairie, KS 67570-0068

## Dear Councilwoman Belden:

Ed Markel, former State Representative Robert Krebhiel, and you met with Secretary Moser on June 10, 2014, to discuss the City of Pretty Prairie's drinking water nitrate issues and possible alternatives to avoiding the high cost of treatment. The main alternatives discussed included source water protection and searching for a new source of water.

Source water protection alone is not a viable option to address Pretty Prairie's nitrate issues at this point since the nitrate levels for the city's water are around 20 mg/L, twice the MCL. We believe this is also borne out in the Whittemore study where it is stated it could be difficult to bring the nitrate levels down to below the nitrate MCL.

Source water protection is a good process to put into place when communities are still below the MCL and seeing a steady rise in nitrate levels. If actively implemented before nitrate levels reach the MCL a community may be able to avoid the need to locate a new source or install treatment.

KDHE approved a similar program for the city, the wellhead protection program, in 1995 which has proven to be unsuccessful in controlling source water nitrate levels. Between 2003 and 2004, KDHE offered additional assistance for both source water protection activities and financial planning and the city declined the offer.

We do recommend an active source water protection program be implemented with the currently proposed treatment project. By helping to moderate source water nitrate levels, an actively implemented source water protection program will likely help the community ultimately reduce operation and maintenance costs. It will also eliminate costs associated with the potential installation of additional treatment capacity should nitrate levels continue to increase if nothing is done.

Searching for and finding a good groundwater source close enough to the city to be a viable option appears to be highly unlikely based on the nitrate levels of existing wells in the area. The city already tried this option once which resulted in the construction of the city's current active source, Well #5. We don't believe the resources the city would spend to locate and construct a new well, even if a satisfactory source could initially be found, would result in a long term solution to the city's high nitrate problems.

Though to date we haven't received the final PER (Preliminary Engineering Report), based on the information presented at the June 10, 2014, KIAC meeting, ion exchange treatment appears to be the best solution for the city to address the high nitrate levels.

We understand that the project discussed at the KIAC (Kansas Interagency Advisory Council) also included costs for other infrastructure including replacing the 1919 vintage water tower and sand-cast iron water mains. Understandably, the total estimated 4.6 million dollar project is a considerable amount for a community like Pretty Prairie. Though final financing numbers still need to be run and presented to the city, we believe that 50% or more of the total project could possibly be financed with a combination of CDBG and RD grants and SRF principal forgiveness.

Two million dollars is still a considerable amount for a community the size of Pretty Prairie to have to spend on water treatment though the city has had two decades to plan and properly address the matter. The Kansas Department of Health and Environment continues to be available to assist the city with the process of implementing a long term solution to the city's drinking water high nitrate issue.

Sincerely,

John W. Mitchell

Director, Division of Environment

JWM:DRP:lw

pc: Mike Tate, Director, BOW

Darrel Plummer, Section Chief, BOW/PWS

South Central District